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(54) ELECTROLYTE FILM, GAS SEAL  
STRUCTURE, AND STACK FOR SOLID  
POLYMER ELECTROLYTE TYPE FUEL CELL

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(57) Abstract:

**PROBLEM TO BE SOLVED:** To ensure and simplify a gas seal, to enable reducing the numbers of part items and assembly man-hours and increasing operating efficiency, and to increase the dimensional accuracy of machining by enabling integration that eliminates the need for thermocompression.

**SOLUTION:** This electrolyte film comprises a solid polymer electrolyte film to one or both sides of which a glued polymer sheet 3 having an opening in its center is bonded, with the opening 6 in the glued polymer sheet 3 located inside the periphery of an electrode consisting of catalyst layers 8, 8 and a porous substrate 9. A gas seal structure comprises the electrolyte film or a gas seal structure with a lamination of carbon plates bonded to each side by an adhesive 4 or a sheet of adhesive 4'. The stack is laminated, and integrated together by the gas seal structure for a solid polymer electrolyte type fuel cell.

